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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,303	08/21/2001	Sandrine Chodorowski	P 0280366	4889

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EXAMINER

HUI, SAN MING R

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,303

Applicant(s)

CHODOROWSKI ET AL.

Examiner

San-ming Hui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39 and 41-98 is/are pending in the application.
- 4a) Of the above claim(s) 44-58 and 86-88 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39, 41-43, 59-85 and 89-98 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 7, 2004 has been entered.

The renumbering of claims 90-97 to claims 90-98 is acknowledged.

The cancellation of claim 40 is acknowledged.

Claims 44-58 and 86-88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

Claims 39, 41-43, 59-85, and 89-98 have been examined herein to the extent they read on the elected invention and species.

The outstanding rejections under 35 USC 112, second paragraph with regard to "sol" and the "at least partial hydrolysis ... condensations" are withdrawn in view of the remarks, and the information provided by the applicant.

Claim R ejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 67 and 93 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "modified natural polymers" recited in claims 67 and 93 renders the claim indefinite as to the polymers encompassed by the claims. It is not clear what polymer would be considered as "modified natural polymer".

Response to Arguments

Applicant's arguments filed October 7, 2004 averring the term "modified natural polymers" being clear to one of ordinary skill in the art have been considered, but are not found persuasive. It is not clear what compounds would be encompassed by the claims. There are no close sets of compounds disclosed in the instant specification that is referred as "modified natural polymer". Therefore, the metes and bounds can not be ascertained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 39, 41-43, 59-85, and 89-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mondet et al. (WO 98/44906, English equivalent US Patent 6,352,699 is also provided) in view of Yue et al. (US Patent 5,700,451).

Mondet et al. teaches a sol/gel composition comprising an organometallic compound, a functionalized organic or silicone polymer, a sufficient amount of water for hydrolysing the organometallic compound, and an alcohol (See the abstract). Mondet et al. teaches the organometallic compound as the compounds of Ia in the instant invention (See col. 3, line 26). Mondet et al. teaches the preferred organometallic compound as tetrapropyl zirconate (See col. 4, line 55). Mondet et al. teaches the preferred functionalized organic or silicone polymer as polydimethylsiloxane-diols (See col. 6, line 13). Mondet et al. teaches the preferred alcohol as ethanol (See col. 6, line 25). Mondet et al. also teaches that the composition can contain active cosmetic or dermatological agent such as sunscreen agent (See particularly col. 6, line 62 to col. 7, line 1). Mondet et al. also teaches weight ratio of the functionalized polymer to the organometallic compounds as 1:9 to 9:1 or 2:8 to 8:2 (See col. 6, lines 28-29). Mondet

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et al. also teaches the weight percent of the sol/gel composition in a cosmetic composition for skin (anti-wrinkle) as 10-70% (See col. 6, line 44-47).

Mondet et al. does not expressly teach a composition comprising the composition of Mondet et al. with an UV-A agent. Mondet et al. does not expressly teach the herein recited UV-A sunscreen agents be incorporated into the composition of Mondet et al. Mondet et al. does not expressly teach the herein claimed particle size of the composition, weight percent in the materials and the weight percent of the functionalized polymer.

Yue et al. teaches composition containing titanium alkoxide (an organometallic compound) is useful as sunscreen agent when hydrolyzed in the presence of water (See col. 4, line 1-3). Yue et al. teaches a second sunscreen agent can be added to the composition and the preferred sunscreen agent as 4,4'-*t*-butylmethoxydibenzoylmethane (See col. 9, line 57). Yue et al. teaches the titanium alkoxide particles is in the size of 50 to 150nm (see col. 4, line 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an UV-A agent, such as the herein preferred UV-A sunscreen agent: 4,4'-*t*-butylmethoxydibenzoylmethane, into the composition of Mondet et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the herein claimed particle size of the composition, weight percent in the materials and the weight percent of the functionalized polymer.

One of ordinary skill in the art would have been motivated to incorporate an UV-A agent, such as the herein preferred UV-A sunscreen agent: 4,4'-*t*-

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butylmethoxydibenzoylmethane, into the composition of Mondet et al. It is known that UV-A sunscreen agent can be incorporated into the composition of Mondet et al.

Therefore, incorporating any UV-A sunscreen agent, such as 4,4'-*t*-butylmethoxydibenzoylmethane, would be reasonably expected to be useful. In addition, Yue et al. further provides a motivation to combine the titanium alkoxide containing composition with 4,4'-*t*-butylmethoxydibenzoylmethane since 4,4'-*t*-butylmethoxydibenzoylmethane is the preferred UV-A sunscreen agent. Combining titanium alkoxide with the preferred UV-A sunscreen agent, such as 4,4'-*t*-butylmethoxydibenzoylmethane, would be reasonably expected to be useful as sunscreen composition.

One of ordinary skill in the art would have been motivated to adjust the herein claimed particle size of the composition, weight percent in the materials and the weight percent of the functionalized polymer because the optimization of result effect parameters (e.g., weight ratio of the actives, particle size, weight amount of the polymers) is obvious as being within the skill of the artisan.

Response to Arguments

Applicant's arguments filed October 7, 2004 averring the unexpected demonstrated in the Examples 1-3 in the instant specification have been fully considered but they are not persuasive. Examiner notes that it is applicant's burden to demonstrate unexpected results over the prior art. See MPEP 716.02, also 716.02 (a) - (g). Furthermore, the unexpected results should be demonstrated with evidence that

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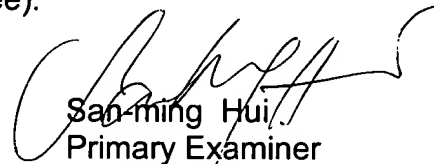
the differences in results are in fact unexpected and unobvious and of both statistical and practical significance. *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992). Moreover, evidence as to any unexpected benefits must be "clear and convincing" *In re Lohr*, 137 USPQ 548 (CCPA 1963), and be of a scope reasonably commensurate with the scope of the subject matter claimed, *In re Linder*, 173 USPQ 356 (CCPA 1972). In the instant case, the Examples 1-3 describing the shifting of the wavelength after adding the excipients to the active agents have been considered. It is not clear if the additional agents would have any effect on the wavelength shifting activities. Without such comparison, one of ordinary skill in the art would not know whether the shifting of wavelength would be indeed unexpected. Furthermore, unless the additional agents are not UV active and inert to the active (i.e., not forming any chemical reaction with the active), the addition of secondary agents would always change the wavelength in the UV spectrometry.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to San-ming Hui whose telephone number is (571) 272-0626. The examiner can normally be reached on Mon 9:00 to 1:00, Tu - Fri from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, PhD., can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



San-ming Hui
Primary Examiner
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